

WHAT IS CLAIMED IS:

1. An optical disk comprising at least one region along a radial direction, and a plurality of tracks provided in the at least one region,

wherein the at least one region contains address regions radially positioned on the plurality of tracks; and

wherein in the address regions, data which is common between two adjacent tracks of the plurality of tracks is recorded at positions aligned along the same radial direction on the two adjacent tracks, and data which is not common between the two adjacent tracks is recorded at positions along different radial directions on the two adjacent tracks.

2. An optical disk according to claim 1, wherein the plurality of tracks include a plurality of first tracks and a plurality of second tracks in which the address region includes the data which is common between the plurality of first tracks and the plurality of second tracks at a position along the same radial direction, and includes the data which is not common between the plurality of first tracks and the plurality of second tracks at positions along different radial directions,

wherein each of the plurality of first tracks and each of the plurality of second tracks are alternately repeated.

3. An optical disk according to claim 2, wherein:

the at least one region further includes a data recording region which is different from the address regions; and

each of the plurality of first tracks in the data recording region is formed of a groove, and each of the plurality of second tracks in the data recording region is formed in a region between the grooves of two adjacent tracks of the plurality of first tracks.

4. An optical disk according to claim 3, wherein of the address regions positioned on the plurality of second tracks, each of the plurality of first tracks in the address region, where data which is different from each other between the plurality of first tracks and the plurality of second tracks is recorded, is formed of a groove.

5. An apparatus for reproducing data recorded in an optical disk having at least one region along a radial direction, and a plurality of tracks provided in the at least one region,

the optical disk including address regions radially positioned on the plurality of tracks provided in the at least one region,

wherein in the address regions, data which is common between two adjacent tracks of the plurality of tracks is recorded at positions aligned along the same radial direction on the two adjacent tracks, and data which is not common between the two adjacent tracks is recorded at positions along different radial directions on the two adjacent tracks; and

a tracking polarity is changed at at least one point in the two adjacent tracks,

the apparatus comprising: a detecting section for detecting record positions of data recorded in the address regions in the two adjacent tracks; and a deter-

mining section for determining a tracking polarity of a track being reproduced among the plurality of tracks based on an output from the detecting section.

6. An apparatus according to claim 5, wherein:

the detecting section is an error detector for detecting error information in data recorded in the address regions so as to correspond to each of the two adjacent tracks; and

the record position of the data is detected based on the detection of the error information for the data.

7. A method for producing an optical disk master, comprising the steps of:

(a) providing a substrate having a photoresist film provided on a surface thereof;

(b) rotating the substrate in a relative relationship with a beam;

(c) irradiating the photoresist film on the substrate with the beam so as to form a first beam trace in the photoresist film;

(d) further irradiating the photoresist film with the beam such that the beam partially overlaps the first beam trace, so that a second beam trace is formed in the photoresist film; and

(e) completing the optical disk master using the photoresist film.

8. A method for producing an optical disk master according to claim 7, wherein the step (d) comprises shifting the beam in a radial direction of the substrate and irradiating the photoresist film with the beam so as to form the second beam trace.

9. A method for producing an optical disk master according to claim 7, wherein the step (d) comprises formation of a second beam trace having a width which is larger than a half-value of the width of the beam in the photoresist film.